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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,797	08/26/2003	Osamu Machida	03280087AA	2015

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EXAMINER

MRUK, GEOFFREY S

ART UNIT PAPER NUMBER

2853

DATE MAILED: 12/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/647,797

Applicant(s)

MACHIDA ET AL.

Examiner

Geoffrey Mruk

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 10-24 is/are pending in the application.
- 4a) Of the above claim(s) 11-23 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5 is/are allowed.
- 6) ☒ Claim(s) 10 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2003 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Claim 1 is generic and allowable. Accordingly, the restriction requirement as to the encompassed species is hereby withdrawn and claim 2, directed to the species 1 of Figures 4 and 5 no longer withdrawn from consideration since all of the claims to this species depend from or otherwise include each of the limitations of an allowed generic claim. However, claim 11 directed to the species 4 of Figures 14-17 remains withdrawn from consideration since claim 11 does not depend upon or otherwise include all the limitations of an allowed generic claim as required by 37 CFR 1.141.

In view of the above noted withdrawal of the restriction requirement as to the linked species, applicant(s) are advised that if any claim(s) depending from or including all the limitations of the allowable generic linking claim(s) be presented in a continuation or divisional application, such claims may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Once a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 44 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 10 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Ohta et al. (US 5,818,482).

With respect to claim 10, Ohta discloses an inkjet recording head (Fig. 1-3) comprising:

- a pressure chamber plate (Fig. 3, element 13) formed with a plurality of pressure (Fig. 3, element 17) chambers filled with ink, the pressure chambers being

aligned in a row that extends in a lengthwise direction (The Examiner notes the first direction to be parallel to line III-III in Fig. 1);

- a diaphragm (Fig. 3, element 12) adhered to the pressure chamber plate (Column 5, lines 37-61);
- a housing (Fig. 3, element 1) having a first surface (Fig. 3, element 5) adhered to the diaphragm (Fig. 3, element 18), the housing being formed with a plurality of through holes (Fig. 2, array of element 5a) at positions corresponding to the pressure chambers (Column 5, lines 25-36, i.e. actuatable piezoelectric element) with the diaphragm interposed between the through holes and the pressure chambers; and
- a plurality of actuators (Fig. 4, array of element 7) disposed in the through holes, one end of each actuator being adhered to the diaphragm (Fig. 4, array of element 18).

With respect to claim 24, Ohta discloses an inkjet recording head (Fig. 1-3)

comprising:

- a pressure chamber plate (Fig. 3, element 13) formed with a plurality of pressure (Fig. 3, element 17) chambers filled with ink, the pressure chambers being aligned in a row that extends in a lengthwise direction (The Examiner notes the first direction to be parallel to line III-III in Fig. 1);
- a diaphragm (Fig. 3, element 12) adhered to the pressure chamber plate (Column 5, lines 37-61);

- a housing (Fig. 3, element 1) having a first surface (Fig. 3, element 5) adhered to the diaphragm (Fig. 3, element 18), the housing being formed with a plurality of through holes (Fig. 2, array of element 5a) at positions corresponding to the pressure chambers (Column 5, lines 25-36, i.e. actuatable piezoelectric element) with the diaphragm interposed between the through holes and the pressure chambers; and
- a plurality of actuators (Fig. 4, array of element 7) disposed in the through holes, one end of each actuator being adhered to the diaphragm (Fig. 4, array of element 18),

The limitation where the housing is produced by forming a groove and punching a plurality of through holes is not seen to be patentably limiting. The limitation is directed to the method of forming the housing. Such a method limitation does not patentably distinct a structure.

Allowable Subject Matter

Claims 1-5 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: The primary reasons for allowance for claims 1-5 is that applicant's claimed invention includes an inkjet recording head that contains a housing having a first surface and a second surface opposing the first surface, the first surface being adhered to the diaphragm, the first surface being formed with a plurality of first grooves that extend in a second direction perpendicular to the first direction, the first grooves confronting the

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pressure chambers with the diaphragm interposed between the first grooves and the pressure chambers, the second surface being formed with a second groove that extends in the first direction, the first grooves intersecting the second groove at positions that confront the pressure chambers, wherein a plurality of through holes that extend from the first surface through to the second surface of the housing are formed where the first grooves intersect the second groove. It is this limitation, expressed in the claimed combination not found, taught, or suggested in the prior art, that makes these claims allowable over the prior art.

Response to Arguments

Applicant's arguments filed 16 August 2005 have been fully considered but they are not persuasive. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a housing with first and second grooves) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey Mruk whose telephone number is 571 272-2810. The examiner can normally be reached on 7am - 330pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on 571 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GSM
12/1/2005

GM


12/5/05
MANISH S. SHAH
PRIMARY EXAMINER